PC19146B Information Disclosure Statement For Appln. No. 10/783,887



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Julie Agozino

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of: SHAO SONG CHU, ET AL

Serial No.: 10/783,887

Confirmation No.: 6970

Filed: February 20, 2004

For: N-CONTAINING CYCLOALKYL-SUBSTITUTED AMINO-THIAZOLE DERIVATIVES AND PHARMACEUTICL COMPOSTIONS FOR INHIBITING CELL PROLIFERATION AND METHODS FOR

THEIR USE

Group Art Unit: T1616

**Examiner: TBA** 

Mail Stop: Amendment

Honorable Commissioner For Patents

P.O. Box 1450

Alexandria, VA 22313-1450

TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT
UNDER 37 C.F.R. § 1.97(b) or 1.97(c)

37 CFR § 1.97(b)

The Information Disclosure Statement submitted herewith is being filed within three months of the filing date of a national application other than a continued prosecution application under § 1.53(d); within three months of the date of entry of the national stage as set forth in § 1.491 in an international application; before the mailing of a first Office Action on the merits; or before the mailing of a first Office Action after the filing of a request for continued examination under § 1.114.

37 CFR § 1.97(c)

The Information Disclosure Statement submitted herewith is being filed after three months of the filing date of a national application other than a continued prosecution application under § 1.53(d); after three months of the date of entry of the national stage as set forth in § 1.491 in an international application; after the mailing of a first Office Action on the merits; or after the mailing of a first Office Action after the filing of a request for continued examination under § 1.114, but before the mailing date of (1) a Final Action under § 1.113; (2) a Notice of Allowance under § 1.311; or (3) an action

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The Commissioner is hereby that otherwise closes prosecution in the application. authorized to charge the fee as set forth in § 1.17(p) to Deposit Account Number 500329. Applicant requests that the Examiner consider the following copending applications: Application Serial No. Filing Date 06-02-2000 09/587,530 08-11-2003 10/639,219 Copies of these copending applications are enclosed. Applicant hereby requests consideration of the Information Disclosure Statement,  $\boxtimes$ USPTO form 1449, submitted herewith. Copies of the cited references, except as noted below, are enclosed. This application is a continuation, divisional or continuation-in-part of Serial No. 10/768,437. Copies of the cited references, if not enclosed, are available in the file of the parent application or parents thereof. Copies of U.S. Patents and U.S. Patent Application Publications are not enclosed.  $\boxtimes$ (waiver of 37 CFR 1.98(a)(2)(iii) pursuant to 37 CFR 1.183). Applicant hereby requests consideration of the enclosed International Search Report, which was received in a related international patent application. The Commissioner is hereby authorized to charge any fee deficiency, including any fee required under 37 C.F.R. § 1.17(p), or credit any overpayment, to Deposit Account Number 500329. A duplicate copy of this form is enclosed. Respectfully submitted, Date: February 14 2005 Attorney For Applicant Registration No. 42,794 Agouron Pharmaceuticals, Inc./A Pfizer Company

Agouron Pharmaceuticals, Inc./A Prizer Company Patent Department 10777 Science Center Drive San Diego, California 92121 Phone: (858) 526-4652

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Complete if Known		
Application Number 10/783,887		
Filing Date	February 20, 2004	
First Named Inventor	Shao Song Chu	
Art Unit	1616	
Examiner Name	TBA	
Attorney Docket Number	PC19146B	

	U.S. PATENT DOCUMENTS				
EXAMINER INITIAL	Cite No. 1	DOCUMENT NUMBER	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup>			
	AA.	US 5,968,929	10-19-1999	Blythin, D., et al.	
	AB	US 6,114,365	09-05-2000	Pevarello, P., et al.	
	AC	US 6,460,202	10-08-2002	Nameche, L.	
	AD	US 6,462,069	10-08-2002	Reich, S., et al.	
	AE	US 6,555,539	04-29-2003	Reich, S., et al.	
<del>-</del>	AF	US 6,566,363	05-20-2003	Chong, W., et al.	
	AG	US 6,620,828	09-16-2003	Chu, S., et al.	
	АН	US 2004/0176431	09-09-2004	Chong, W., et al.	

	FOREIGN PATENT DOCUMENTS					
EXAMINER INITIAL	Cite No. 1	Foreign Patent Document Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T°
	Al	EP 816362A	01-07-1998	Taisho Pharmaceutical Co. Ltd.		
	AJ	WO 98/04536	02-05-1998	Otsuka Pharmaceutical Company, Limited		
	AK	WO 99/21845	05-06-1999	Agouron Pharmaceuticals, Inc.		
•	AL	WO 99/24416	05-20-1999	Bristol-Myers Squibb Company		
	AM	WO 99/24035	05-20-1999	Bristol-Myers Squibb Company		
•	AN	WO 99/65884	12-23-1999	Bristol-Myers Squibb Company		

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INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

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	Complete	e if Known
$\Box$	Application Number	10/783,887
	Filing Date	February 20, 2004
	First Named Inventor	Shao Song Chu
	Art Unit	1616
	Examiner Name	TBA
	Attorney Docket Number	PC19146B
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	AO	WO 99/65844	12-23-1999	Rhodia Chimie		
-	- 170			Vertex Pharmaceuticals	,	
	AP	WO 00/17175	03-30-2000	Incorporated		
-				Pharmacia & Upjohn		
	AQ	WO 00/26202	05-11-2000	S.P.A.		
				Pharmacia & Upjohn		ĺ
	AR	WO 00/26203	05-11-2000	S.P.A.		

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
·	AS	ABELE, S., et al., "Oligomers Of \$\mathbb{G}^2\$ And Of \$\mathbb{G}^3\$-HOMOPROLINE: What Are The Secondary Structures Of \$\mathbb{G}\$-Peptides Lacking H-Bonds?," Helvetica Chimica Acta, 1999, 1539-1558, vol. 82.	
	AT	ADAMS, J., et al., "Recent Progress Towards The Identification Of Selective Inhibitors Of Serine/Threonine Protein Kinases," <i>Curremt Opinion In Drug Discovery &amp; Development</i> , 1999, 96-109, vol. 2, no. 2.	
	AU	ANDERSON, Jr., A., et al., "The synthesis Of Azetidine-3-Carboxylic Acid," J. Org. Chem., 1972, 3953-3655, vol. 37, no. 24.	
	AV	BLEICHER, L., et al., "A Practical And Efficient Synthesis Of The Selective Neuronal Acetylcholine-Gated Ion Channel Agonist (S)-(-)-5-Ethynyl-3-(1-methyl-2-pyrrolidinyl)pyridine Malaeate (SIB-1508Y)," J. Org. Chem., 1998, 1109-1118, vol. 63.	
	AW	BOGESO, K., et al., "Enhanced D <sub>1</sub> Affinity In A Series Of Piperazine Ring Substituted 1-Piperazino-3-Arylindans With Potential Atypicall Antipsychotic Activity," <i>J. Med. Chem.</i> , 1995, 4380-4392, vol. 38.	
	AX	BUOLAMWINI, J., et al., "Cell Cycle Molecular Targets In Novel Anticancer Drug Discovery," Current Pharmaceutical Design, 2000, 379-392, vol. 6.	ļ
	AY	CALDWELL, W., et al., "The Synthesis Of 2-Amino-5-Pyrimidinesulfonamide And Some Of Its Derivatives," <i>J. Amer. Chem. Soc.</i> , 1959, 5166-5167, vol. 81.	
	AZ	CALDWELL, W., et al., "Substituted 2-Sulfonamido-5-Aminopyridines. II," J. Amer. Chem. Soc., 1944, 1479-1484, vol. 66.	
<u>.</u>	ВА	CHUNG, J., et al., "Conformationally Constrained Amino Acids. Synthesis And Optical Resolution Of 3-Substituted Proline Derivatives," <i>J. Org. Chem.</i> , 1990, 270-275, vol. 55.	

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First Named Inventor	Shao Song Chu	
Art Unit	1616	
Examiner Name	TBA	
Attorney Docket Number	PC19146B	

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	ВВ	COREY, E., et al., "Formation Of Olefins Via Pyrolysis Of Sulfonate Esters," <i>J. Org. Chem.</i> , 1989, 389-393, vol. 54.
	ВС	COSSY, J., et al., "Ring Expansion – Formation Of Optically Active 3-Hydroxypiperidines From Pyrrolidinemethanol Derivatives," <i>Eur. J. Org. Chem.</i> , 1999, 1693-1699.
	BD	CREWS, C., et al., "Small-Molecule Inhibitors Of The Cell Cycle, <i>Current Opinion In Chemical Biology</i> , 2000, 47-53, vol. 4.
	BE	DE COSTA., B., et al., "Synthesis And Biological Evaluation Of cofnormationally Restricted 2-(1-Pyrrolidinyl)- <i>N</i> -[2-(3,4-Dichlorophenyl)Ethyl]- <i>N</i> -Methylethylenediamines As Receptor Ligands. 1. Pyrrolidine, Piperidine, Homopiperidine, And Tetrahydroisoquinoline Classes," <i>J. Med. Chem.</i> , 1992, 4334-4343, vol. 35.
	BF	DEWYNTER, G., et al., "Synthèse de "Sulfahydantoïnes" Chirales. Aspects Stèrèochimiques Et Protection Règiospècifique," <i>Tetrahedron</i> , 1993, 65-76, vol. 49, no. 1.
•	BG	DONETTI, A., et al., "A Mild And Effective Two-Step Conversion Of Disubstituted Cyanamides To Secondary Amines," <i>J. Org. Chem.</i> , 1972, 3352-3353, vol. 37, no. 21.
	вн	FISCHER, P., et al., "Inhibitors Of cyclin-Dependent Kinases As Anti-Cancer Therapeutics,"  Current Medicinal Chemistry, 2000, 1213-1245, vol. 7.
	BI	FRY, D., et al., "Inhibitors Of cyclin-Dependent Kinases As Therapeutic Agents For The Treatment Of Cancer," Current. <i>Opiion In. Oncologic, Endocrine &amp; Metabolic. Investigtional Drugs</i> , 2000, 40-59, vol. 2, no. 1.
	BJ	GARCIA-ECHEVERRIA, C., et al., "ATP Site-Directed Competitive And Irreversible Inhibitors Of Protein Kinases," <i>Med. Res. Rev.</i> , 2000, 28-57, vol. 20.
	BK_	GEWALD, V., et al., " 4-Amino-thiazole," <i>Journal Für Prakttische Chem</i> ie, 1967, 97-104, vol. 35.
	BL	GRAY, N., et al., "ATP-Site Directed Inhibitors Of Cyclin-Dependent Kinases, " Current Medicinal Chemistry, 1999, 859-875, vol. 6.
	ВМ	KARAMAN, R., et al., "Symmetrical And Unsymmetrical Quadruply Aza Bridged Closely Interspaced Cofacial Bias(5,10,15,20-tetraphenylporphyrin)s. 2. Synthesis, Characterization, And Conformational Effects Of Solvents," <i>J. Am. Chem. Soc.</i> , 1992, 4889-4898, vol. 114.
•	BN	KASHIMA, C., et al., "Preparation Of Sterically More Crowded 1,5-Disubstituted Imidazoles By The Regioselective N-Alkylation," Heterocycles, 1993, 433-440, vol. 35, no. 1.

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	во	KEMPF, D., t al., "Symmetry-Based Inhibitors Of HIV Protease. Structure-Activity Studies Of Acylated 2,4-Diamino-1,5-Diphenyl-3-Hydroxypentane And 2,5-Diamino-1,6-Diphenylhexane-3,4-Diol," <i>J. Med. Chem.</i> , 1993, 320-330, vol. 36.
	ВР	KIRK, K., et al., "Facile Synthesis Of 2-Substituted Imidazoles," <i>J. Org. Chem.</i> , 1978, 4381-4383, vol. 43, no. 22.
	BQ	KLOEK, J., et al., "An Improved Synthesis Of sulfamoyl Chlorides," J. Org. Chem., 1976, 4028-4029, vol. 41, no. 25.
	BR	LEWIS, F., et al., "Photophysical And Photochemical Behavior Of Intramolecular Styrene-amine Exciplexes," <i>J. Am. Chem. Soc.</i> , 1991, 3498-3506, vol. 113.
	BS	MAGNUS, P., et al., "Synthesis Of The Vinblastine-like Antitumor Bis-Indole Alkaloid Navelbine Analogue Desethyldihydronavelbine," <i>J. Org. Chem.</i> , 1991, 1166-1170, vol. 56.
•	вт	MARKLEY, L., t al., " Antipicornavirus Activity Of Substituted Phenoxybenzenes And Phenoxypyridines," <i>J. Med. Chem.</i> , 1986, 427-433, vol. 29.
	BU	MC MAHON, G., et al., "Protein Kinase Inhibitors: Structural Determinants For Target Specificity," Current Opinion In Drug Discovery & Development, 1998, 131-146, vol. 1.
	BV	MOSS, R., et al., "An Imidazole-Functionalized Phosphatidylcholine derivative: Nucleophilic Vesicles With Adjustable Reactivity," <i>J. Amer. Chem. Soc.</i> , 1987, 6209-6210, vol. 109.
	BW	NAEGELI, C., et al., "2-Amino-Pyridin-5-Sulfonsäure-Amid Und Einige Abkömmlinge," Helv. Chim. Acta., 1939, 1746-1756, vol. 21.
	вх	NORRIS, T., et al., "Synthesis Of Trovafloxacin Using Various (1α,5α,6α)-3- Azabicyclo[3.1.0)Hexane Derivatives," <i>J. Chem. Soc., Perkin Trans.</i> 1, 2000, 1615-1622.
	BY	O'CONNELL, J., et al., "Convenient Synthesis Of Methyl 1-Methyl-2,4-Dibromo-5- Imidaolecarboxylate," Synthesis, 1988, 767-771.
	BZ	OWENS, A., et al., "Cardiotonic Agents 4. Dimaprit analogues As Potential Cardiovascular Selective H <sub>2</sub> -Agonists," <i>Eur. J. Med. Chem. Chem.</i> , 1988, 295-300, vol. 23.
	CA	PAU, A., et al., "Synthesis Of 1-Methyl-4-( <i>N</i> -Aroyl)-Piperidinamides With Anti-Inflammatory And Analgesic Activities," <i>Farmaco</i> , 1998, 233-240, vol. 53.
	СВ	RONDESTVEDT, Jr., C., et al., "Unsaturated Sulfonic Acids. IV. Preparation And Properties Of α-Bromoalkenesulfonyl Chlorides," <i>J. Amer. Chem. Soc.</i> , 1954, 1926-1929, vol. 76.

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	СС	ROSANIA, G., et al., "Targeting Hyperproliferative Disorders With Cyclin Dependent Kinase Inhibitors," <i>Expert Opinion On Therapeutic Patents</i> , 2000, 215-230, vol. 10, no. 2.
	CD	SIELECKI, T., et al., "Cyclin-Dependent Kinase Inhhibitors: Useful Targets In Cell Cycle Regulation," <i>Journal of Medicinal Chemistry</i> , 2000, 1-18, vol. 43, no. 1.
	CE	STERNFELD, F., et al., "Synthesis And Serotonergic Activity Of 3-[2-(Pyrrolidin-1-yl)Ethyl]Indoles: Potent Agonist For The h5-HT <sub>1D</sub> Receptor With High Selectivity Over The h5-HT <sub>1B</sub> Receptor," <i>J. Med. Chem.</i> , 1999, 677-690, vol. 42.
	CF	STOVER, R., et al., "Recent Advances In Protein Kinase Inhibition: current Molecular Scaffolds Used For Inhibitor Synthesis," <i>Current Opinion In Drug Discovery &amp; Development</i> , 1999, 274-285, vol. 2.
•	CG	STRAWN, L., et al., "Tyrosine Kinases In Disease: Overview Of Kinase Inhibitors As Therapeutic Agents And current Drugs In Clinical Trials," <i>Expert Opinion On Investigational Drugs</i> , 1998, 553-573, vol. 7.
•	СН	TOLEDO, L., et al., "The Structure-Based Design Of ATP-Site Directed Protein Kinase Inhibitors," Current Medicinal Chemistry, 1999, 775-805, vol. 6.
	CI	VIOLA, A., et al., "Acetylenes As Potential <i>Antarafacial</i> Components In Concerted Reactions.  Formatio Of Pyrroles From Thermolyses Of Propargylamines, Of A Dihydrofuran From A  Propargylic Ether And Of An Ethylidenepyrrolidine From a β-Amino Acetylene" J. Org. Chem.
	CJ	WEBSTER, K., et al., "The Therapeutic Potential Of Targeting The Cell Cycle," Exert. Opiniion On Investigtional Drugs, 1998, 865-887, vol. 7.
	СК	WINN, M., et al., "2,4-Diarylpyrrolidine-3-Carboxylic Acids-Potent ET <sub>A</sub> Selective Endothelin Receptor Antagonists. 1. Discovery Of A-127722," <i>J. Med. Chem.</i> , 1996, 1039-1048, vol. 39.
	CL_	ZHAO, R., et al., "Camptothecin And Minor-Groove Binder Hybrid Molecules: Synthesis, Inhibition Of Topoisomerase I, And Anticancer Cytotoxicity <i>in Vitro</i> ," J. Med. Chem., 1997, 216-225, vol. 40.
<b>•</b>		

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